

**CHEWING-LICE (PHTHIRAPTERA : INSECTA) COLLECTED DURING  
SCRUB-TYPHUS SURVEY OF MANIPUR, INDIA.**

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**INTRODUCTION**

During the Second World War (1945) Dr M.L. Roonwal, as mammalogist attached to the Army Headquarters in course of the investigations on tsutsugmushi disease (Scrub-typhus) in the Assam-Burma war front collected in 1945 several vertebrate and invertebrate groups including the insects. A series of papers appeared on these collections viz. , Roonwal (1949 a-b; 1950 ), Roonwal & Nath (1949), Kapur (1956), Menon (1953), Menon, A..G.K. (1955), and Nath (1953). The insect collections also include some chewing-lice off the Falconiformes.

Since the chewing-lice have been branded as transmitters of typhus, rickettsiasis and are also definitive vectors of bird filaria, dog tape worm, infectious equine anaemia, dermatitis, etc. , though their actual role in disease transmission is not as marked as that of Sucking-lice, it is felt desirable to report in this paper the species collected to supplement the results of the investigations already published.

Species so far reported from Manipur State are also included in this paper.

**SYSTEMATIC ACCOUNT**

Order **PHTHIRAPTERA**

Suborder **AMBLYCEROPHTHIRINA**

Family **MENOPONIDAE**

1. *Colpocephalum turbinatum* Denny, 1842, one Male from *Milvus migrans lineatus* (J. E. Gray), Imphal Valley, 21.xii.1945, coll. Dr. M.L.R. (Z.S.I. Reg. No. 579/H16) ; 2 Males , 5 females from *Gyps himalayensis* Hume ( R3 ), 9 km off Imphal, 25.xi.1945, coll. Dr. M.L.R. ( Z.S.I. Reg. No. 575-578/H16 )

Suborder **ISCHNOCEROPHTHIRINA**

Family **PHILOPTERIDAE**

2. *Falcolipeurus quadripustulatus* (Burmeister, 1838), 11 Males, 12 Females , and 6 (nymphs ) from *Gyps himalayensis* Hume (R3), 9 km off Imphal, 23.xii.1945, coll. Dr M. L. R. ( Z.S.I. Reg. No. 815/H16, 867 / H16 )

3. *Degeeriella regalis* (Giebel, 1966), 1 Male from *Milvus migrans lineatus* (J.E. Gray) (R2), Imphal Valley, Manipur, 21.xi.1945, coll. Dr M.L.R. (Z.S.I. Reg. No. 815/H16)
4. *D. rufa* (Burmeister, 1838), 4 Males from *Falco tinnunculus interstinctus* Horsfield, Kangra Tongli, 25 km off Imphal, 23.xi.1945, coll. Dr M.L.R. (Z.S.I. Reg. No. 808-809/H16)
5. *Craspedorrhynchus* sp. near *spathulatus* (Giebel, 1874), 1 Male from *Milvus migrans lineatus* (J.E. Gray), Imphal, 21.xi.1945, coll. Dr M.L.R. (Not registered because of damaged condition).

All the above specimens are from birds of prey (Falconiformes). Other species reported from Manipur State are listed below.

#### LIST OF SPECIES RECORDED FROM MANIPUR

Suborder AMBLYCEROPHTHIRINA

Family MENOPONIDAE

1. *Myrsidea bhutanensis* Tandan, 1972, from *Garrulax r. ruficollis* (Jardine et Selby), Kangpokpi, Manipur (Tandan, 1972).
2. *M. orientalis* Tandan, 1972, from *G.p. pectoralis* (Gould), Kangpokpi, Manipur (Tandan, 1972).

Family RICINIDAE

3. *Ricinus fringillae de* Geer, 1778, from *Emberiza a. aureola* Pallas, Moirang, Manipur (Rheinwald, 1968).
4. *R. rubeculae* (Schrank, 1776), from *Saxicola caprata* (Linne), Kangla Tongli, Manipur (Rheinwald, 1968).

Suborder ISCHNOCEROPHTHIRINA

Family PHILOPTERIDAE

5. *Alecdocus annularis* Ansari, 1955, from *Halcyon s. smyrnensis* (Linne), Imphal, erroneously reported as *A. annulatus* Ansari (Tendeiro, 1965).
6. *Brueelia sternotypicus* Ansari, 1956, from *Garrulax p. pectoralis* (Gould), Manipur (Ansari, 1956).
7. *B. ventratum* Ansari, 1956, from *G.R. ruficollis* (Jardine et Selby), Manipur, (Ansari, 1956).
8. *Coloceroides unchalli* Tendeiro, 1972, from *Macropygia unchall tusalia* (Blyth), Kangpokpi, Manipur (Tendeiro, 1972).
9. *Columbicola theresae* Ansari 1955, from *Streptopelia t. tranquebarica* (Hermann), Manipur (Tendeiro, 1962).

10. *Degeeriella discocephalus (aquilarum)* Eichler, 1943, from *Aquila pomarina hastata* (Lesson), Manipur (Clay, 1958).
11. *D. rufa* (Burmeister, 1838), from *Falco tinnunculus* Linne, Manipur (Clay, 1958).
12. *Fulicoffulal urida* (Nitzsch, 1818), from *Fulica a. atra* (Linne), Manipur (Clay & Hopkins, 1960).
13. *Nitzschiella doreyana* Eichler, 1950, from *Macropygia unchall tusalia* (Blyth), Manipur (Tendeiro, 1974).
14. *Rallicola indicus* Emerson & Elbel, 1961, from *Metopidius indicus* (Latham), Moirang, Manipur (Emerson & Elbel, 1961).
15. *Sturnidoecus laticepalum* Ansari, 1967, from (*Aethiopsar albicinctus*), *Acridothores albocinctus* Godwin-Austen & Walden, Manipur as *S. bannoo laticepalum* (Ansari, 1967).

#### Family TRICHODECTIDAE

16. *Damalinia indica* (Werneck 1950), on *Muntiacus muntzak* (Zimmermann), Imphal (Werneck, 1950).

Of the above sixteen species, only the last one is from a mammal and all the rest are from birds. On comparison of these sixteen with those made by Dr. M.L. Roonwal, only one species viz., *D. rufa* is found between them common and the rest of the four are new records for Manipur.

#### SUMMARY

During the Second World War, Dr M.L. Roonwal, then Mammalogist, Army Headquarters, collected various animal groups including the insects in course of the investigations on tsutsugumushi disease (Scrub-typhus) in Assam-Burma war front in 1945. These insect collections include some chewing-lice also. Though few, since the lice are usually branded as carrying typhus and other disease causing agents, it is felt desirable to report the species encountered. A list of species reported from the state of Manipur is also provided and a comparison shows that of the five species collected, four are now being reported for the first time.

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